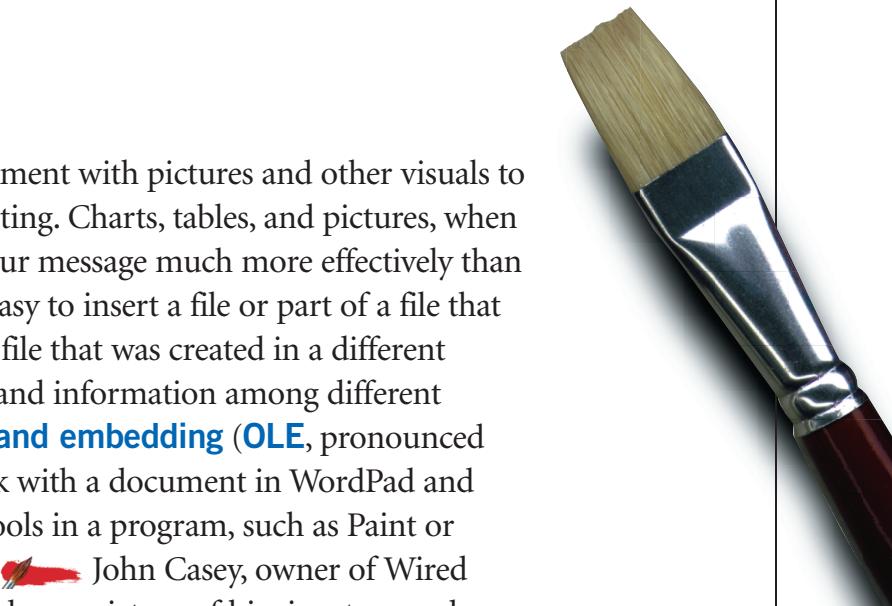


Sharing Information among Programs

Objectives

- ▶ Understand object linking and embedding
- ▶ Embed a new object
- ▶ Embed an existing object
- ▶ Edit an embedded object
- ▶ Embed a video clip
- ▶ Modify a video clip
- ▶ Link an object
- ▶ Update a link

You can supplement text in a document with pictures and other visuals to make your document more interesting. Charts, tables, and pictures, when combined with text, can convey your message much more effectively than text alone. Windows XP makes it easy to insert a file or part of a file that was created in one program into a file that was created in a different program. The ability to share files and information among different programs is called **object linking and embedding (OLE)**, pronounced “oh-lay”). With OLE, you can work with a document in WordPad and take advantage of the specialized tools in a program, such as Paint or Microsoft Excel, at the same time.  John Casey, owner of Wired Coffee Company, will use OLE to place a picture of his signature and a picture of his company logo in a sales promotion document. He will also use OLE to insert a video clip in a promotional document and to link a picture to a flier.





Understanding Object Linking and Embedding

OLE involves sharing information between two programs. The information, often referred to as an **object**, can be a picture from a graphics program, a chart from a spreadsheet program, a video clip, text, or almost anything else you can create on a computer. The program that creates the object is called the **source program**; the program that creates the file into which you want to insert the object is called the **destination program**. Likewise, the file that originally contained the object is called the **source file**, and the file where you want to insert the object is called the **destination file**. Both embedding and linking involve inserting an object into a destination file; they differ in where their respective objects are stored. With **embedding**, a copy of the object becomes part of the destination file. If you want to edit the object, you make changes in the destination file, and the original file remains intact. With **linking**, a representation of the object appears in the destination file, but the object is stored in the source file. If you want to edit the linked object, you make changes in the source file or its representation in the destination file, and the changes will be reflected in the other file the next time you open it. Figure K-1 illustrates the process of embedding an object into a document, and Figure K-2 illustrates the process of linking an object to a document. Table K-1 can help you decide whether to embed or link an object.



John wants to explore the benefits of sharing information between programs.

Details

By using OLE, John will be able to do the following:

► Access features from other programs

With OLE, John can put information from one program into another. For example, he can insert a picture into WordPad (a word processing program) by using Paint (a drawing program).

► Edit data easily

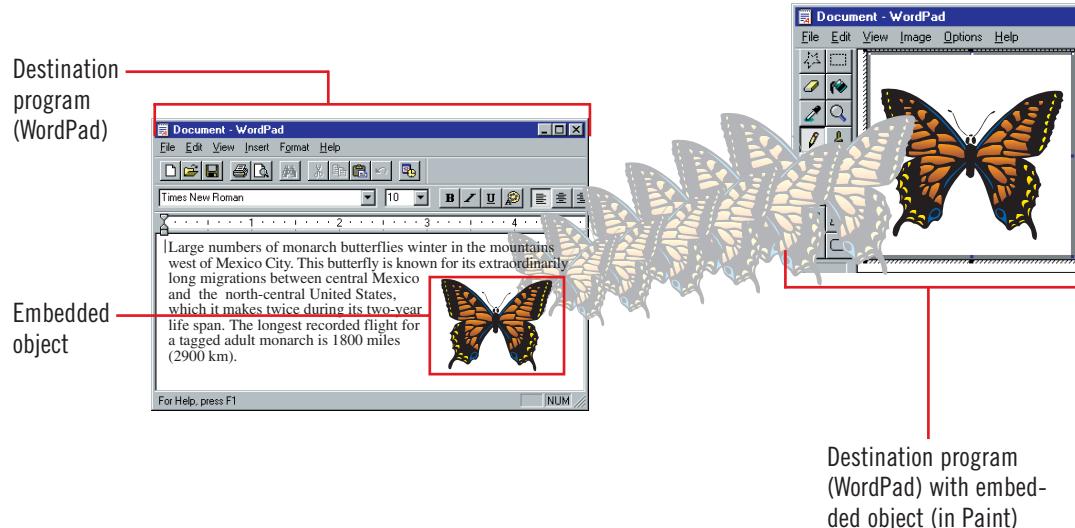
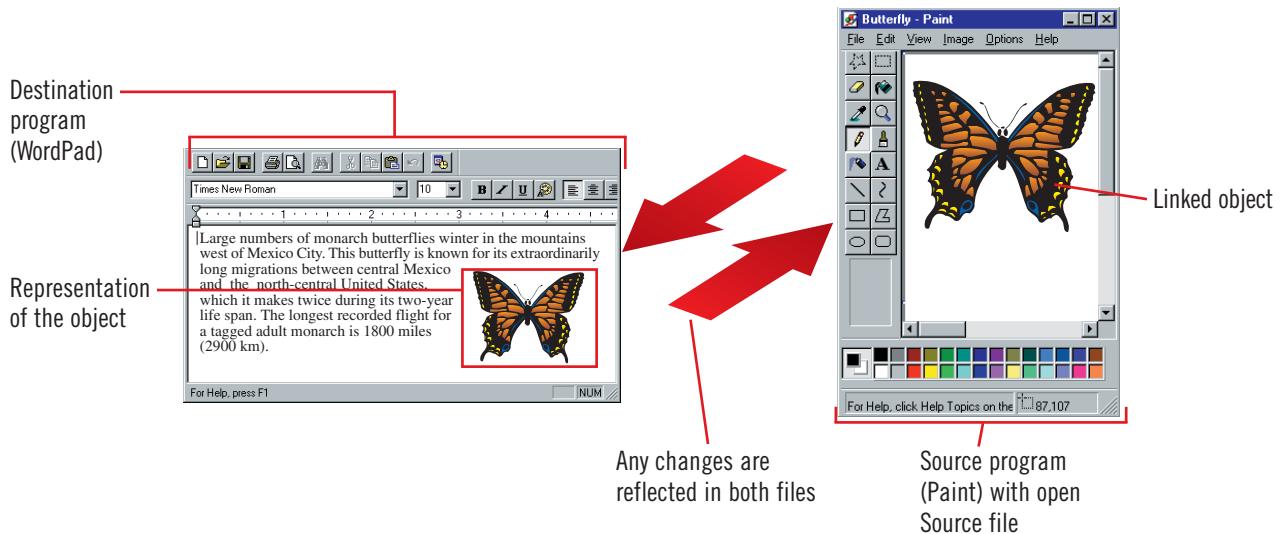
When you embed or link an object, you can edit the object directly in the embedded program. For example, if John embeds or links a Paint drawing into a WordPad document, he can edit the drawing from WordPad while using Paint tools. The Paint tools are made available in the destination program through the object.

► Update to the latest information

Some of your documents may contain objects from source files that other users access, such as financial information or artwork. If you insert the object with a link, Windows will update the object automatically if a user changes the source file. For example, John can link a Paint drawing to his WordPad document. If someone changes the Paint drawing, John's WordPad document is updated with the changes the next time he opens the document in WordPad.

► Save space

When you link an object to a document, a representation of the object, which takes up less disk space than the object itself, appears in the document. The actual object is stored in the source file, and the destination file stays small. Embedding, on the other hand, can require more disk space because the object is actually copied to the destination file. John can use linking to keep the file size of his documents small, thereby saving disk space on his computer.

FIGURE K-1: Embedding an object**FIGURE K-2: Linking an object****TABLE K-1: Embedding versus linking**

situation	action
You are the only user of an object, and you want it to be part of your document	Embed
You want to access the object in its source program, even if the original file is not available	Embed
You want to update the object manually while working in the destination program	Embed
You always want an updated object	Link
The object's source file is on a network where others can change or access it	Link
You want to keep your document file size small	Link



Embedding a New Object

Sometimes an application isn't capable of creating the data you need to display. For example, if you wanted to include a picture in a WordPad document, which does not have drawing features, you could start Paint, create a picture in Paint, copy it, switch to WordPad, and paste the picture into your document. Instead of switching back and forth between programs to create and insert a picture, you can embed a Paint object from WordPad. When you embed a Paint object into your WordPad document, Paint automatically starts in the WordPad program window, so you can create and edit the drawing without leaving WordPad. Embedding can be done with the Insert Object command, and the Copy and Paste Special commands.



John wants to create a picture of his signature and place the picture at the bottom of a sales document.

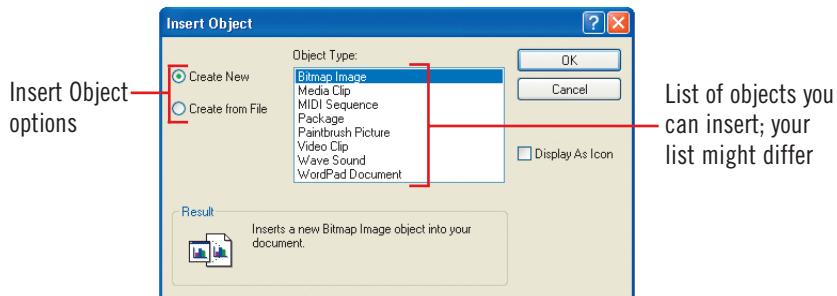
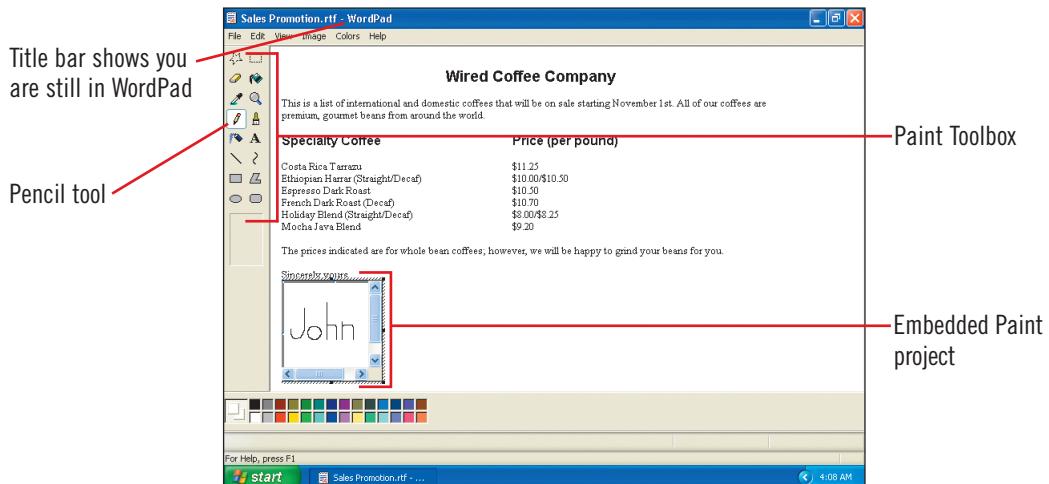
Steps 123

1. Click the **Start button** on the taskbar, point to **All Programs**, point to **Accessories**, then click **WordPad**
WordPad opens with a blank document.
2. Open the file **WIN K-1** from the drive and folder where your Project Files are located, then save it as **Sales Promotion**
The Sales Promotion file opens in the WordPad window.
3. Click the **Maximize button** in the WordPad window if necessary, then click one line below the phrase "**Sincerely yours,**" to place the insertion point
4. Click **Insert** on the menu bar, then click **Object**
The Insert Object dialog box, shown in Figure K-3, lets you select an object type and specify whether to create a new object or insert an object from a file that already exists.
5. Click the **Create New option button** to select it if necessary
6. In the Object Type list box, scroll to and click **Paintbrush Picture**, then click **OK**
An empty Paint canvas appears inside a selection box (indicated by gray slanted lines) in the WordPad document, and Paint's menus and tools are available. Though it appears that you have switched to Paint (the source program), the title bar confirms that you are still in WordPad. As long as the Paint object is selected, however, you can use the Paint tools as if you were in the stand-alone Paint program.
7. Click the **Pencil tool** on the Toolbox if necessary, then drag in the Paint object to draw the name **John**, as shown in Figure K-4
If you don't like how a line appears, use the Undo command on the Edit menu.

QuickTip

To delete an object in the destination program, click the object, then press [Delete].

8. Click outside of the drawing area to exit Paint
The source program closes, and the embedded Paint object becomes part of your document; it is a graphic object that can be moved or resized just like any other object. Sizing handles appear around the embedded object, indicating that it is currently selected.
9. Click outside of the object to deselect it, then click the **Save button** on the toolbar to save the document
Compare your screen to Figure K-5.

FIGURE K-3: Insert Object dialog box**FIGURE K-4:** Embedded Paint object**FIGURE K-5:** WordPad document with Paint object

Deselected embedded Paint object



Viewing object properties

If you need to find out the type, size, or location of an object in a document, you can select the object, then click Object Properties on the Edit menu to display this information. The General tab appears with the object information, including the object's type and original location. You can also change the appearance of an object with the View tab in the Object

Properties dialog box. An embedded object can appear as editable information, such as a picture or chart, or as an icon. By default, an object appears as editable information, but you can change an object to appear as an icon in order to save disk space. Depending on the type of object, such as a graphic file, you can also change the size of the object.



Windows XP

Embedding an Existing Object

In addition to creating and embedding an object from scratch, you can also embed an existing file. When you embed an existing file into a document, a copy of the file is stored in the destination document as an object. The original file remains unchanged, and the object becomes part of the document.  John wants to embed the company logo into his sales document.

Steps 123⁴

QuickTip

To place the insertion point at the beginning of a document, press [Ctrl][Home].

QuickTip

To insert an icon in a document in place of an object, click the Display As Icon check box to select it in the Insert Object dialog box. To view the object, double-click the icon in the document.

QuickTip

When you insert an existing file into a document, the source program for the embedded object does not start. You can start the source program and make changes by double-clicking the object.

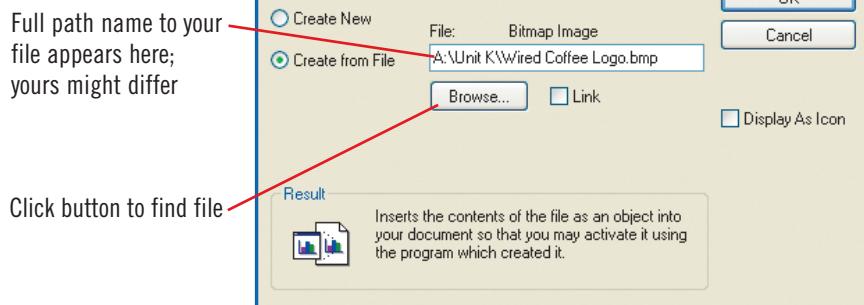
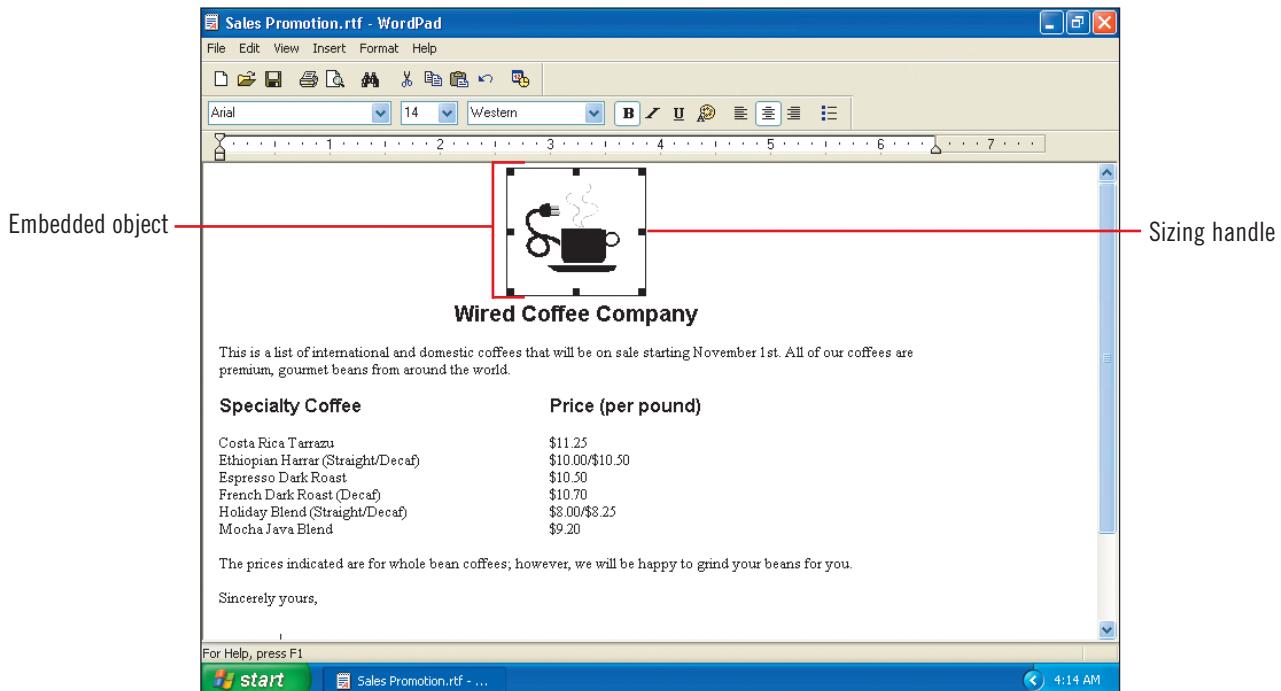
1. In the WordPad document, scroll if necessary, then click in the blank line above the title "Wired Coffee Company"
This places the insertion point where you want the company logo to appear.
2. Click **Insert** on the menu bar, then click **Object**
The Insert Object dialog box opens.
3. Click the **Create from File option button**
The Object Type list box changes to the File text box.
4. Click **Browse**
The Browse dialog box opens, from which you can select the file to insert.
5. Navigate to the drive and folder where your Project Files are located, click **Wired Coffee Logo**, then click **Open**
As shown in Figure K-6, the full path name appears in the File text box. The object type for Wired Coffee Logo is a bitmap image. A bitmap image (BMP) is a common file format for pictures that are used by drawing programs.
6. Click **OK**
The embedded object is inserted into the WordPad document. Compare your screen to Figure K-7. Sizing handles appear around the embedded object, indicating that it is selected. Sizing handles are the small black boxes around the edge of a selected object. In WordPad, as in other Windows programs, sizing handles are used to change the shape and size of an object.
7. Click the **Save button**  on the toolbar to save the document



Embedding objects by copying and pasting

Instead of using the Insert Object command to embed files, you can also embed files by copying and pasting. For example, if you want to embed a slide from Microsoft PowerPoint to a Word document, you can open the PowerPoint file, select the slide, click the Copy button on the Standard toolbar, open the Word document, place the insertion point where you want

to embed the object, click Edit on the menu bar, click Paste Special, click the Paste option button, click the embedded object type (in this case Microsoft PowerPoint Slide Object), then click OK. When embedding is not supported by a program, such as Notepad, the object you copied is simply pasted into the document instead of embedded.

FIGURE K-6: Insert Object dialog box**FIGURE K-7:** WordPad document with embedded object

Placing part of a file on the desktop

If you have part of a document, either text or graphic, that you want to use in multiple documents, you can create a scrap on the desktop, which you can drag to other documents or programs. A **scrap** is a file that is created when you drag part of a document to the desktop. If the programs you are using support OLE drag-and-drop functionality, such as WordPad, you can create a scrap on the desktop. If you can drag-and-drop text or graphics in a file window, the program supports OLE, and you can create a scrap. To place

part of a file on the desktop, resize the file window so you can see the desktop, select the text or graphic you want to become a scrap, then drag the selected text or graphic to the desktop. An icon appears on the desktop with the name "Scrap" or the name of the program from which you copied the information followed by "Scrap" and part of the text copied. For example, if you drag the text "Sincerely yours," to the desktop from WordPad, the scrap document name is "WordPad Document Scrap 'Sincerely yours,...'"



Windows XP

Editing an Embedded Object

After you insert an embedded object, you can edit or change the contents of the embedded object any time you want. To edit the information in an embedded object, you can double-click the object in the destination file. Windows locates the object's source program and starts it within the destination program. You can then use tools and features of the source program to edit the object. When you're done, you click outside the object and the source program closes.



John wants to enlarge and add color to the Wired Coffee Logo in the sales document.

Steps 123⁴

Trouble?

If large resize handles appear around the object, double-click it to edit it.

1. Double-click the **Wired Coffee logo**

The source program (Paint) opens within the WordPad document. If you can't see the entire object in WordPad, scroll bars will appear around it, so you might need to resize the viewing area of the object in WordPad.

2. If necessary, position the sizing pointer over the lower-right sizing handle of the embedded object, then drag the **sizing handle** to match Figure K-8

As you drag the sizing handles of an embedded object, the border size of the object changes.

3. Click the **Fill With Color button** on the Paint Toolbox

4. Click the **red color cell** (third from the left in the second row) on the Paint Color box

The Foreground color in the Paint Color box changes to red, as shown in Figure K-9.

5. Position the mouse pointer over the Paint object

Notice that the pointer changes to when you move it in the Paint object.

6. Click the tip of inside the coffee cup

The Fill With Color tool fills only the area inside the lines. If you fill the wrong area, use the Undo command to reverse the action and try again.

7. Click the **blue color cell** (seventh from the left in the second row) on the Paint Color box, then click the tip of inside the saucer below the cup

The saucer is filled with blue.

8. Click outside the object to exit Paint, then click to the right of the embedded object

Paint closes and the object is deselected. Compare your screen to Figure K-10. The changes you made to the embedded object appear only in this document. If you opened the Wired Coffee Logo in Paint, you would see that it is still black and white.

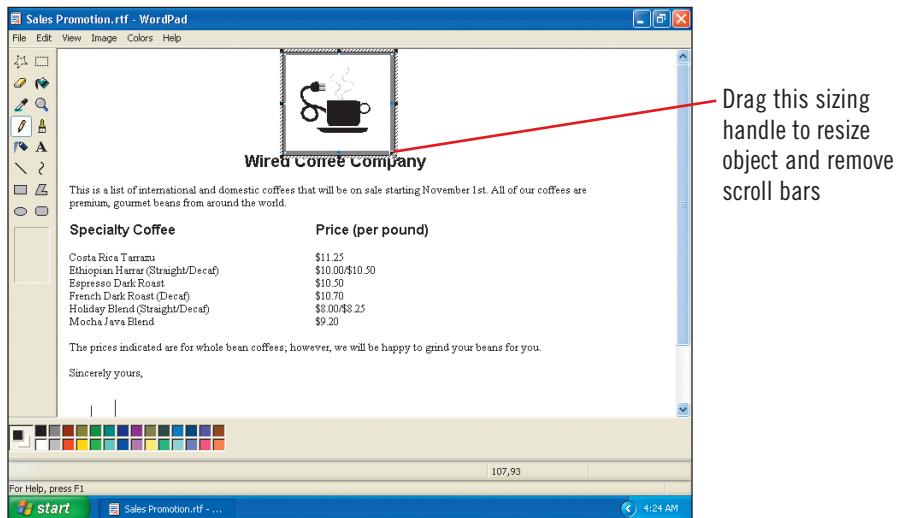
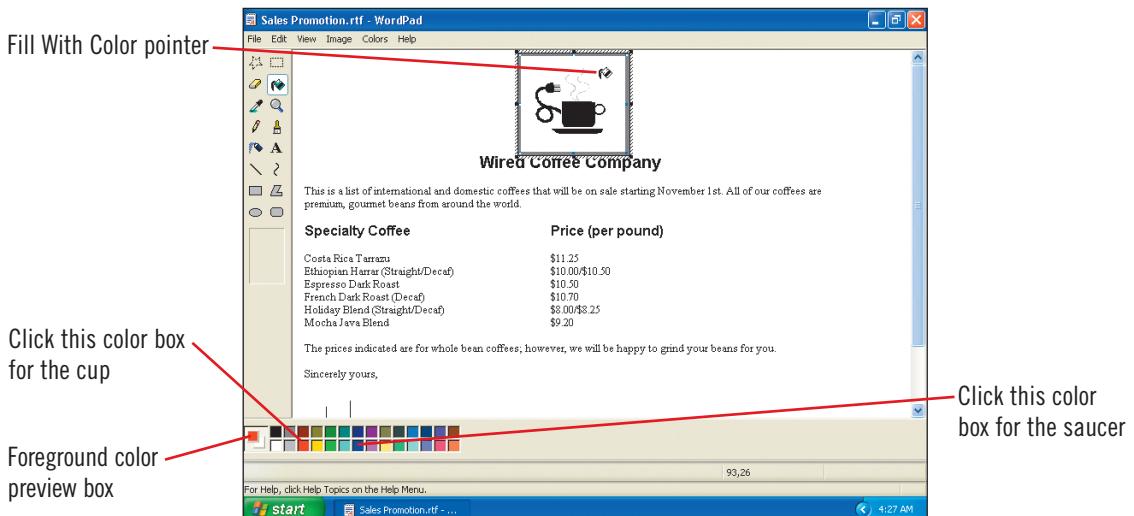
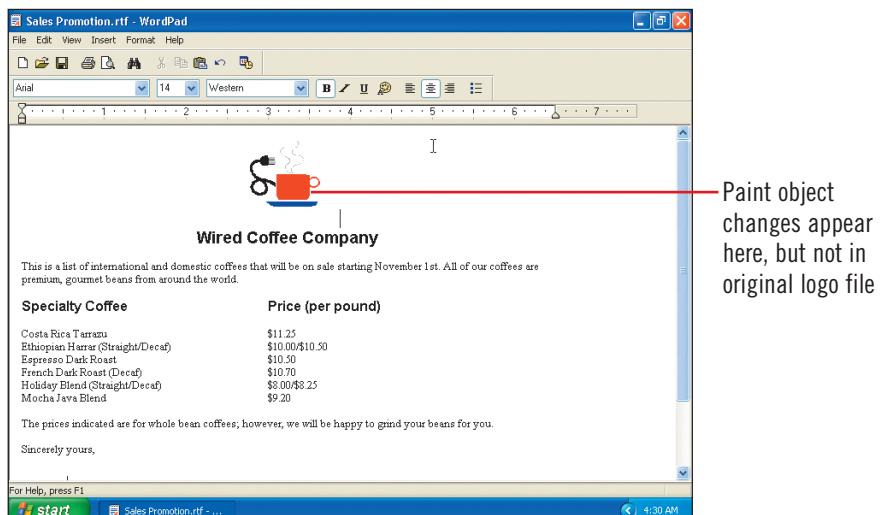
9. Click the **Save button** on the toolbar to save the document



Saving an embedded object

If you have changed an embedded object, and you decide to save the object not only in the destination program but also in a separate file, you can save a copy of the embedded object. For example, to save a copy of the color Wired Coffee logo in a separate file, you would select the image, click Edit on the WordPad menu bar, point to Bitmap Image Object,

then click Open. The Paint program opens with the company logo in a separate Paint window that is in front of the WordPad window. Click File on the menu bar, click Save Copy As, then save the file. To exit Paint and return to WordPad, click File on the menu bar, then click Exit & Return to Sales Promotion.

FIGURE K-8: Editing an embedded object in Paint**FIGURE K-9:** Paint Color box**FIGURE K-10:** WordPad document with edited object



Embedding a Video Clip

You can enhance a simple document with multimedia by adding a video or sound clip. Showing a video or playing a sound clip can help convey your message better than text. When you embed a video or sound clip into a document, it becomes part of the document, so you don't have to keep track of the clip as an external file. As a single document, you can send it in an e-mail attachment, but be aware, video and sound clips can greatly increase the size of a document. You can play back the clip with Media Player, an accessory that comes with Windows XP that plays audio, video, or animation files, and controls the settings for multimedia hardware devices. Media Player is designed to play common video and audio formats, such as .avi (Video for Windows) and .wav, a common sound type. See Table K-2 for a description of the Media Player media types. If you insert a file with the .wmv (Windows Media Video) or .wma (Windows Media Audio) format, the Windows Media Player opens to play the file. To hear the sound on a video clip that has audio, you need to have a sound card and speakers. You can still play a video without a sound card or speakers, but you won't get any sound. When you print a document with an embedded video or sound clip, the printed page appears just like the image on the screen. John wants to insert a video clip into a WordPad document in order to promote international coffee.

Steps 123

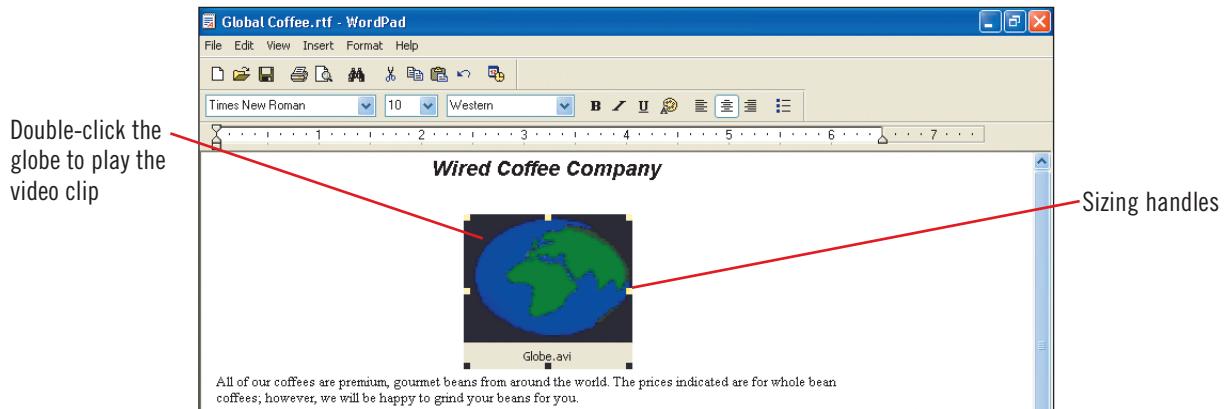
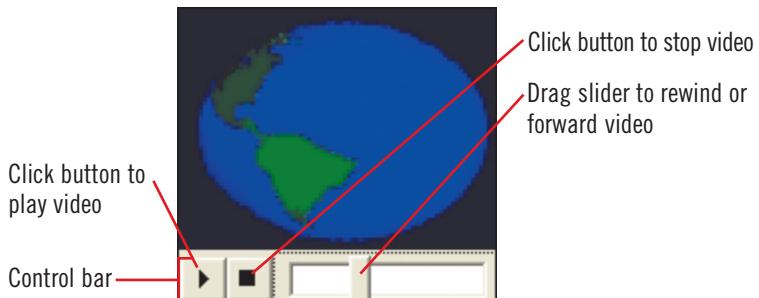
QuickTip

To open a file with a specific program, right-click the file in My Computer or Windows Explorer, point to Open With, click the program you want to use or click Choose Program, then double-click the one you want.

1. In WordPad, open the file **WIN K-2** from the drive and folder where your Project Files are located, then save it as **Global Coffee**
WordPad closes the Sales Promotion document and opens the new document.
2. In the Global Coffee document, click in the **second blank line** below the title "Wired Coffee Company"
This places the insertion point where you want the video to appear.
3. Click **Insert** on the menu bar, then click **Object**
The Insert Object dialog box opens.
4. Click the **Create from File option button**
The Object Type list box changes to the File text box.
5. Click **Browse**, in the Browse dialog box, navigate to the drive and folder where your Project Files are located, click **Globe**, then click **Open**
The full path name of the video clip object appears in the File text box. The file's object type, Video Clip, appears above the File text box.
6. Click **OK**
The video clip is embedded in the WordPad document. Sizing handles appear around the embedded object, as shown in Figure K-11.
7. Double-click the **video clip object** to play it, then quickly click the **Pause button**
on the Control bar
The video clip plays until you pause it, as shown in Figure K-12, or until it reaches the end of the video clip. When you play a video clip, a Control Bar appears with playback buttons, such as Play, Stop, and Pause, which are similar to those on a VCR.
8. Drag the **slider** all the way to the left to rewind the video
9. Click the **Play button** on the Control bar
The video plays from the beginning until the end. The Control bar closes when the video stops.

Trouble?

If the video clip ends before you click the Pause button, the Pause button changes back to the Play button. Double-click the globe or click the Play button, then click the Pause button.

FIGURE K-11: WordPad document with video clip**FIGURE K-12:** Embedded video clip with Control bar**TABLE K-2:** Media Player media types

media type	media format	hardware	description
Video	Video for Windows (.avi) Moving Pictures Experts Group (.mpeg, .mpg)	None	Continuous digital video
Animation	Video for Windows (.avi)	None	A series of graphic images
Audio	CD Audio (.cda) Sound (.wav)	Sound card and speakers	A series of sound waves
Musical Instrument Device Interface (MIDI)	MIDI Sequencer (.mid, .rmi, .midi)	Sound card and speakers	Electronic instructions to play sheet music



Inserting a sound

You can insert a new or existing sound into a document in the same way that you insert a video clip. To insert a sound, click Insert on the menu bar, then click Object to open the Insert Object dialog box. To embed an existing sound file, click the Create from File option button, click Browse, double-click a sound, then click OK. To create a new sound, click the Wave Sound object type, then click OK. When you create a new sound to embed, the Sound Recorder embedded program opens, and you need a

microphone to create a sound effect. Sound Recorder allows you to adjust volume and speed, add echo, play in reverse, and mix sound elements to create the effect you want. When you close Sound Recorder, a small speaker icon appears in your document. When you insert an existing sound file, the Media Player or a small speaker icon appears in your document depending on the sound format. Before you can play a sound, you need to install a sound card and speakers.



Windows XP

Modifying a Video Clip

After you insert a video clip, you can edit it or modify its playback options. Media Player offers basic editing capabilities to select, cut, copy, and paste segments of a video clip. If you need more advanced editing, recording, or compressing of video clips, you can use Windows Movie Maker, which comes with Windows XP. Media Player also allows you to set the video clip to automatically repeat or rewind, to display the Control bar, and to set display and playback options. For example, if you want to print your document with an embedded video clip, but don't want to include the caption at the bottom, you can change the Media Player option setting to hide the Control bar.  John wants to modify the playback options of the Globe video clip so that it repeats and so that the Control bar does not appear.

Steps 123

1. Right-click the **Globe** video clip object, point to **Video Clip Object**, then click **Edit**

The Media Player menus and toolbar open in WordPad, as shown in Figure K-13. You change the playback options of the Globe video clip, so they look better in the document.

2. Click **Edit** on the menu bar, then click **Options**

The Options dialog box opens, as shown in Figure K-14.

3. Click the **Control Bar On Playback** check box to deselect it if necessary

The Control Bar On Playback option is deselected, and the Control bar will not appear when you play the video clip.

4. Click the **Auto Repeat** check box to select it if necessary

The Auto Repeat option is checked, and the video will repeat when it is done playing.

5. Click **OK**

The video clip appears without the Control bar.

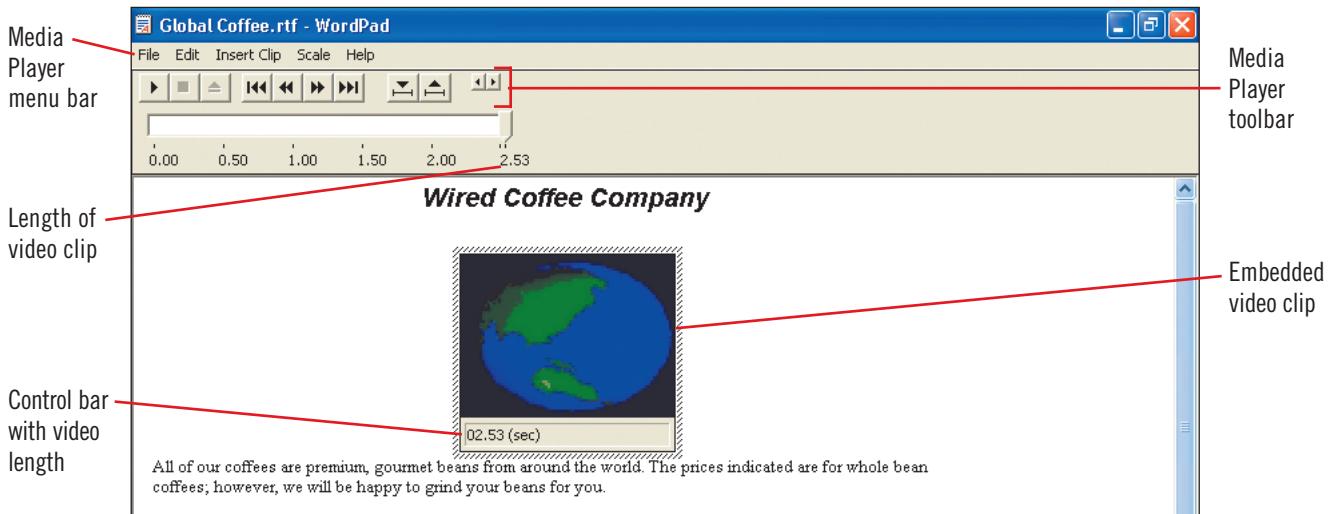
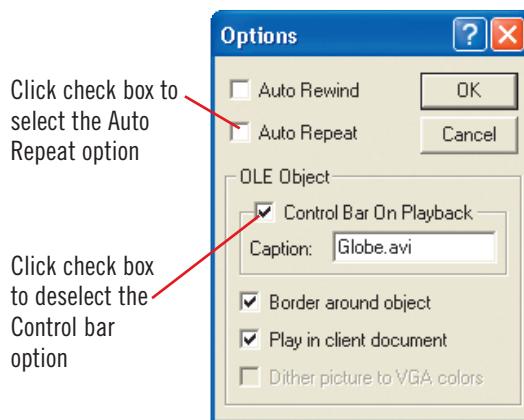
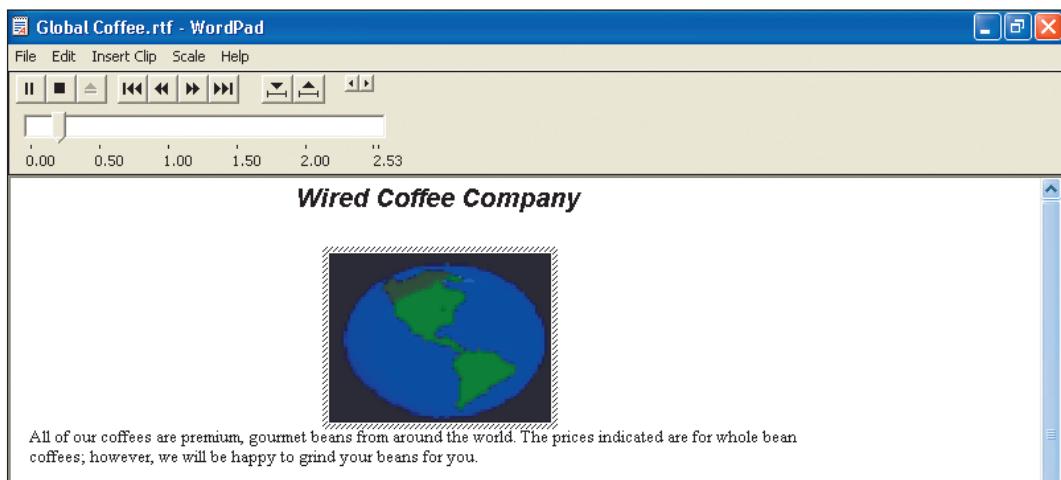
6. Click the **Play** button ▶ on the Media Player toolbar

The video clip plays without the Control bar, as shown in Figure K-15, and automatically repeats until you click the Stop button.

7. Click the **Stop** button ■ on the Media Player toolbar

8. Click **Edit** on the menu bar, click **Options**, click the **Auto Repeat** check box to deselect it, click the **Control Bar On Playback** check box to select it, type **Globe** in the **Caption** text box, then click **OK**.

9. Click a blank area of the WordPad window to exit Media Player, click the **Save** button on the WordPad toolbar, then click the **Close** button in the WordPad window

FIGURE K-13: Embedded Media Player program in WordPad**FIGURE K-14:** Options dialog box**FIGURE K-15:** Video clip without Control bar



Linking an Object

When you want to keep source and destination files in sync with each other, you can link the source file that created the object with the destination file that displays the object. Unlike an embedded object, which is stored directly in the destination file, a linked object remains stored in its source file. Only a representation of the object appears in the destination file. You can edit the object itself in the source file, or you can edit its representation in the destination file—either way, changes you make will be updated in the other file the next time you open it.  John wants to link a picture of a coffee cup to an informational flier he is creating so that if he decides to change the picture, it will be changed in the flier as well.

1. Click the **Start button**, point to **All Programs**, point to **Accessories**, click **Paint**, open the file **Coffee Cup** from the drive and folder where your Project Files are located, save it as **Coffee Cup Image**, then exit Paint
Saving the Paint file with a new name will keep the original file intact.
2. Click the **Start button**, point to **All Programs**, point to **Accessories**, click **WordPad**, open the file **WIN K-3** from the drive and folder where your Project Files are located, then save it as **Roasting Flier**
3. In the WordPad document, click in the **blank line** two lines below the title “Wired Coffee Company”
The insertion point appears in the center of the blank line. You will insert a link to the Coffee Cup Image file you just created in Paint into the WordPad document.
4. Click **Insert** on the menu bar, click **Object**, then click the **Create from File option button** in the Insert Object dialog box
The current folder, typically My Documents, appears in the File text box. The Insert Object dialog box has a **Browse** button to select a file to insert, and a **Links** check box to link instead of embed the selected file.
5. Click **Browse**, in the Browse dialog box, navigate to the drive and folder where your Project Files are located, click **Coffee Cup Image**, then click **Open**
So far you have done the same steps that you would do for embedding; however, you want to link the two files, so when you change the coffee cup image in Paint or in the destination file, the revisions are seen in all of the documents linked to the source file.
6. Click the **Link check box** to select it, as shown in Figure K-16, then click **OK**
The linked object appears on the WordPad page, as shown in Figure K-17. The linked object looks just like an embedded object; the difference is that any changes you make will affect both files.
7. Click **Edit** on the menu bar, then click **Links**
The Links dialog box opens, as shown in Figure K-18. In this dialog box, you can open the source file, change the source file, or break the link. You can also check or change the way linked objects are updated; the default setting is automatic.
8. In the Update section, click the **Manual option button**
This changes the update status of the object so that it will be updated with changes made to the source object only when you choose. For supported programs, you can set a linked object to be updated automatically when the source file is revised and saved, or manually when you click **Update Now** in the Links dialog box. If a source object is located on a removable disk, it's a good idea to change the update status to manual.
9. Click **Close** in the Links dialog box, then click the **Save button**  on the WordPad toolbar to save the document
The Links dialog box closes, and your changes are saved to disk.

FIGURE K-16: Insert Object dialog box

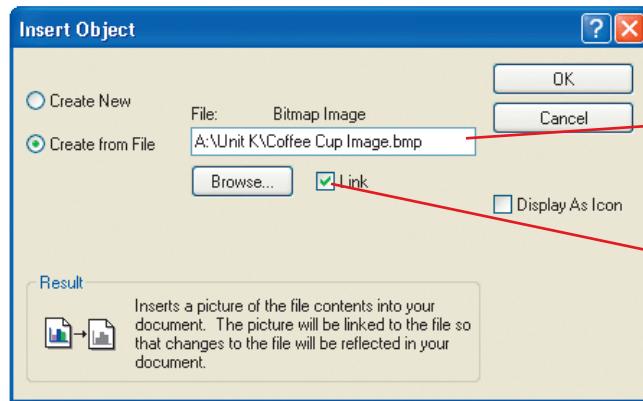


FIGURE K-17: WordPad document with linked object

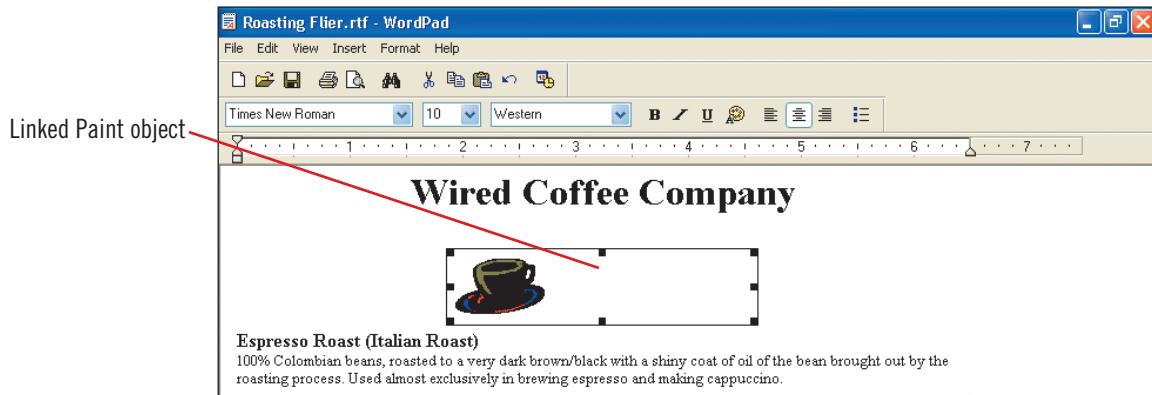
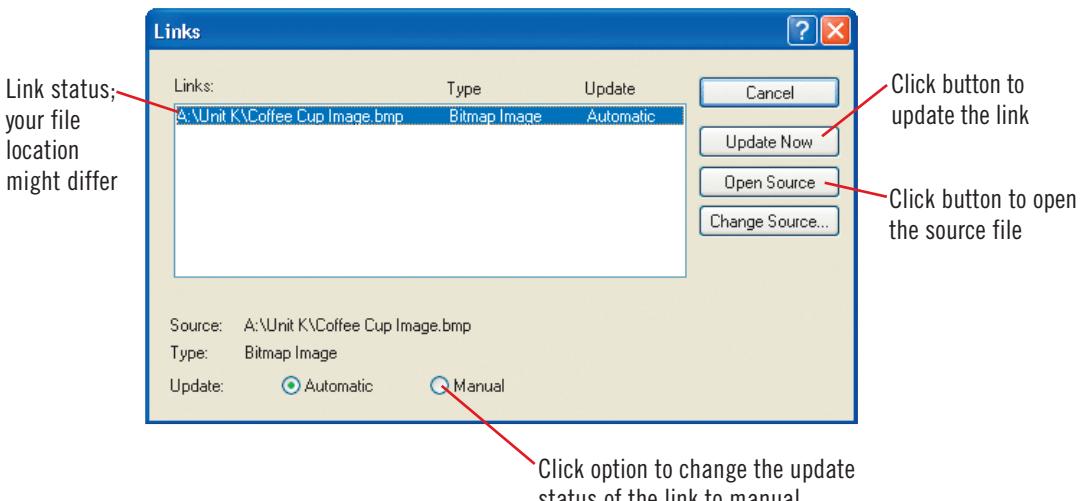


FIGURE K-18: Links dialog box



Linking objects by copying and pasting

Instead of using the Insert Object command to link files, you can also link files by copying and pasting. For example, if you want to link a chart from Microsoft Excel to a Word document, you can open the Excel file, select the chart, click the Copy button

on the Standard toolbar, open the Word document, place the insertion point where you want to link the object, click Edit on the menu bar, click Paste Special, click the Paste Link option button, then click OK.



Steps 123

QuickTip

To open a linked object, the object's source program and source file must be available on your computer or network.

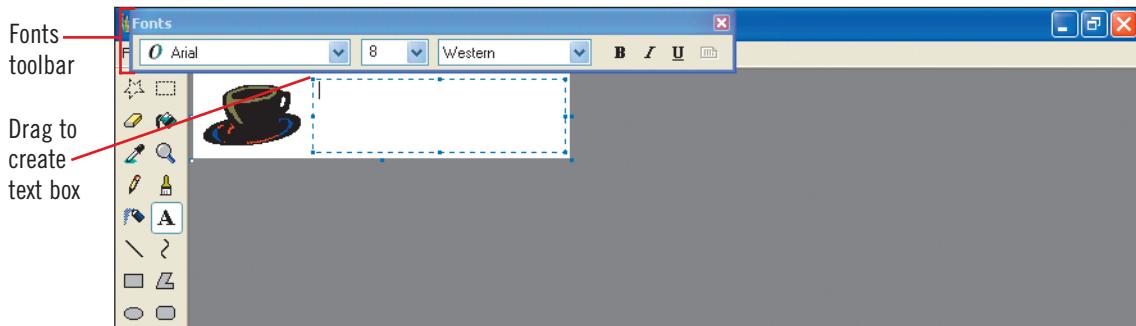
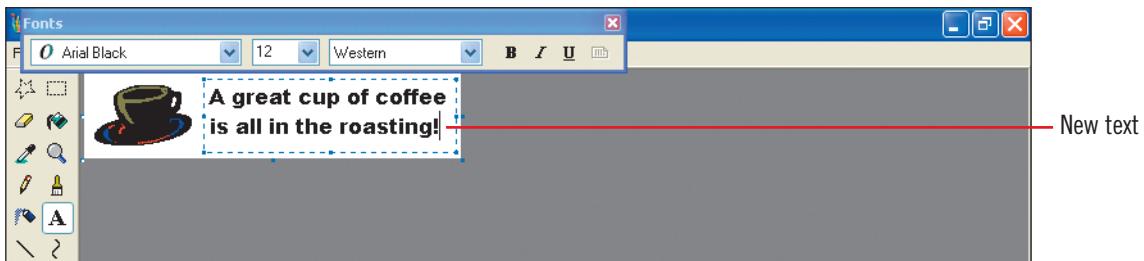
Trouble?

If you can't see the Fonts toolbar, click View on the menu bar, then click Text Toolbar.

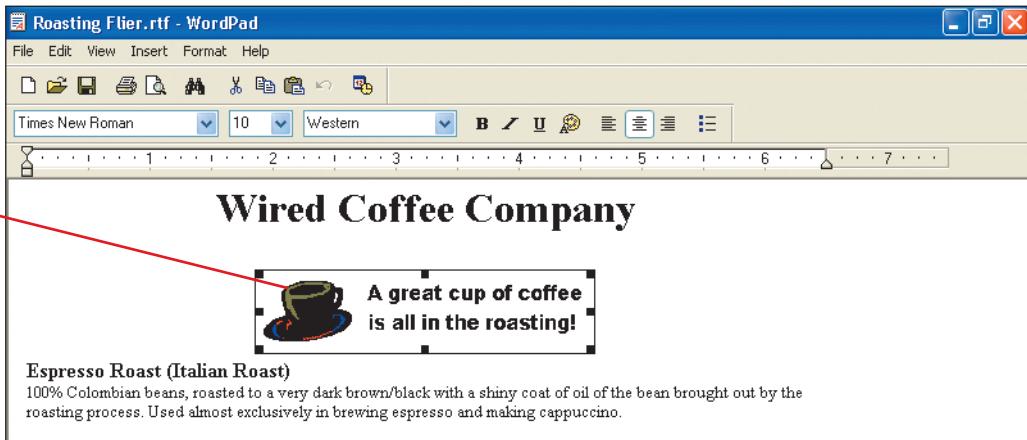
Updating a Link

When you want to edit a linked object, you can double-click it in the destination file just as you do with embedded objects, or you can start the source program, open the source file, then make and save your changes. When you double-click a linked object in the destination file, the source program and source file open in a separate window from the destination file. Remember that the object in the destination file is only a representation; any changes made to the object are done in the source file, whether you access it by double-clicking the object in the destination file or by opening it in the source program. John wants to add some text to the coffee cup image. He'll open the linked Paint object, add some information, then update the linked object in WordPad.

1. Click the **Start button**, point to **All Programs**, point to **Accessories**, click **Paint**, then open the file **Coffee Cup Image** from the drive and folder where your Project Files are located
Paint starts, displaying the linked file.
2. Click the **Maximize button** in the Paint program window if necessary, click the **Text button** A on the Paint Toolbox, then drag to create a text box, as shown in Figure K-19
The text box appears with an insertion point, and the Fonts toolbar appears.
3. Click the **Font list arrow** on the Fonts toolbar, click **Arial Black** or a similar font, click the **Font Size list arrow**, then click **12**
4. Click the **text box**, then type **A great cup of coffee is all in the roasting!**
The text automatically wraps inside the text box. When the text box appears, you can edit the text. Press [Backspace] to correct any mistakes. Compare your screen to Figure K-20.
5. Click outside of the text box within the object
When you deselect the text box, the text becomes part of the image.
6. Click the **Close button** in the Paint window, then click **Yes** to save the changes
Paint closes, and the WordPad window appears.
7. Click the **linked object** to select it if necessary, click **Edit** on the menu bar, then click **Links**
The Links dialog box opens.
8. Click **Update Now**, then click **Close**
The linked object in the Roasting Flier is updated with the changes you made to the source file in Paint, as shown in Figure K-21.
9. Click the **Close button** in the WordPad window, then click **Yes** to save the changes

FIGURE K-19: Paint object with text box**FIGURE K-20:** Paint object with new text**FIGURE K-21:** WordPad document with updated object

Updated
Paint object
in WordPad



Finding, changing, and breaking a linked object

Instead of opening a linked object from the source file to make changes, you can open a linked object from the destination file using the Open Source button in the Links dialog box. The Open Source button finds the source file containing the linked object and opens that file. After making changes, you exit and return to the destination file. The Links dialog box keeps track of the source file location. You can change the linked source to a different file by using

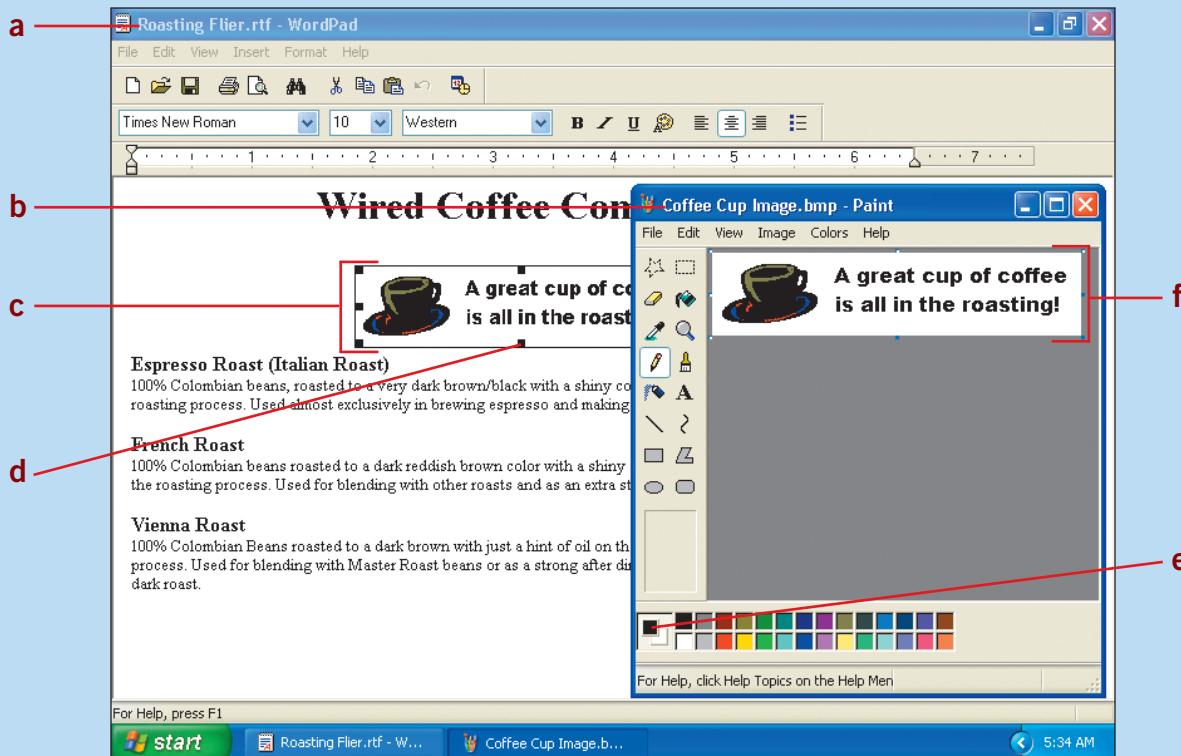
the Change Source button. If you want to disregard a link and change it to an embedded object, select the linked object in the destination file, click Edit on the menu bar, click Object Properties, click the Link tab, click Break Link, click Yes in the message box, then click OK. On the Link tab in the Object Properties dialog box, you can also open or change the source file, change update options, and update the source for the selected object.

Practice

► Concepts Review

Label each element of the screen shown in Figure K-22.

FIGURE K-22



1. Which element points to the destination program?
2. Which element points to the embedded object?
3. Which element points to the source program?
4. Which element points to the source contents?
5. Which element points to a sizing handle?
6. Which element points to the foreground color?

Match each term with the statement that describes its function.

7. Object	a. An object created in one program and stored in another
8. Embedded object	b. The place where an embedded object is stored
9. Links	c. The WordPad menu command you use to embed a file
10. Link	d. The place where a linked object is stored
11. Destination file	e. WordPad menu command you use to check the status of a document's links
12. Source file	f. The connection between an object from a source file and the respective destination file

Select the best answers from the following lists of choices.

13. Which of the following objects can be embedded into WordPad?

- a. Video clip
- b. Picture
- c. Microsoft Excel chart
- d. All of the above

14. Which type of object is stored only in its source file?

- a. A linked object
- b. An embedded object
- c. A text placeholder
- d. None of the above

15. Which program would you most likely use to create an embedded object that resembles a drawing?

- a. Media Player
- b. Microsoft Word
- c. Microsoft Paint
- d. Microsoft Excel

16. Which of the following is NOT true about embedded objects?

- a. Embedded objects can be edited from the destination file.
- b. Embedded objects are stored in the destination file.
- c. Embedded objects are displayed in the destination file.
- d. Embedded objects are stored in the source file.

17. Which of the following is NOT false about linked objects?

- a. To edit a linked object, you must open its source file.
- b. A linked object is an independent object embedded directly into a document.
- c. You can access a linked object even when the source file is not available.
- d. A linked object substantially increases your destination file size.

18. Which of the following is NOT true about updating a link?

- a. You can manually update a link.
- b. You can update a linked object even when the link is broken.
- c. When you link an object, the default setting for updating is “automatic.”
- d. An automatic link updates when the source file is saved.

19. Which command on the Edit menu can you use to update a link?

- a. Links
- b. Paste Special
- c. Object
- d. Object Properties

 Skills Review**1. Embed a new object.**

- a. Start WordPad.
- b. Open the file WIN K-4 from the drive and folder where your Project Files are located.
- c. Save the document as **Company Memo**.
- d. Click the first blank line below the phrase "Sincerely yours."
- e. Click Insert on the menu bar, then click Object.
- f. Click the Paintbrush Picture object type, then click OK.
- g. Use the Pencil tool to draw the signature **John** in the embedded object.
- h. Click outside the object to exit Paint.
- i. Save the WordPad document.

2. Embed an existing file.

- a. Click the blank line above the title at the top of the WordPad document.
- b. Click Insert on the menu bar, then click Object.
- c. Click the Create from File option button, click Browse, then navigate to the drive and folder where your Project Files are located.
- d. Click the file Wired Coffee Logo.
- e. Click Open, then click OK.
- f. Click outside of the object to deselect it.
- g. Save the WordPad document.

3. Edit an embedded object.

- a. Double-click the Wired Coffee Company Logo at the top of the WordPad document.
- b. Use the Rounded Rectangle tool to draw a rectangle around the Wired Coffee Company Logo in the embedded object.
- c. Click the Fill With Color tool, choose a color, then click a blank area inside the rectangle to change the background to a different color.
- d. Click outside the object to exit Paint.
- e. Save the WordPad document.

4. Embed a video clip.

- a. Click the second blank line below the title in the WordPad document.
- b. Click Insert on the menu bar, click Object, click the Create from File option button, then click Browse.
- c. Navigate to the drive and folder where your Project Files are located, then click the Globe file.
- d. Click Open, then click OK.
- e. Play the video clip.
- f. Save the WordPad document.

5. Modify a video clip.

- a. Right-click the video clip, point to Video Clip Object, then click Edit.
- b. Click Edit on the menu bar, then click Options.
- c. Click the Control Bar On Playback check box to deselect it.
- d. Click the Auto Repeat check box to select it, then click OK.

- e. Play the video clip, then stop it.
- f. Change the options to turn off Auto Repeat, display the Control Bar on playback, and add Globe as the caption.
- g. Click outside the object to exit Media Player.
- h. Save the WordPad document, then close WordPad.

6. Link an object.

- a. Start Paint.
- b. Open the file Burst Sign from the drive and folder where your Project Files are located.
- c. Save the file as **Burst Sign Image**, then close Paint.
- d. Start WordPad.
- e. Open the file WIN K-5 from the drive and folder where your Project Files are located.
- f. Save the document as **Holiday Sale**.
- g. Click the second blank line below the title of the WordPad document.
- h. Click Insert on the menu bar, click Object, click the Create from File option button, then click Browse.
- i. Navigate to the drive and folder where your Project Files are located, click the file Burst Sign Image, then click Open.
- j. Click the Link check box to select it, then click OK.
- k. Click Edit on the menu bar, click Links, click the Manual option button, then click Close.
- l. Save the document.

7. Update a link.

- a. Start Paint.
- b. Open the file Burst Sign Image from the drive and folder where your Project Files are located.
- c. Click the Text tool, then drag to create a text box inside the burst sign.
- d. Type **Sale** (do not click outside the text box yet).
- e. Click the Font Size list arrow on the Fonts toolbar, then click 18, or a similar font size that matches the text above the burst.
- f. Click outside the text box. Add your name to the document.
- g. Save your changes to the file, then close Paint.
- h. Make sure the Burst image is selected in the WordPad document, click Edit on the menu bar, then click Links.
- i. Click Update Now, then click Close.
- j. Save and print the document.
- k. Close WordPad.

► Independent Challenge 1

You opened a small arts and craft store called Stamp By Me. You want to create a flier that contains sales and promotional information for the next three months.

- a. Start Paint, open the file WIN K-6 from the drive and folder where your Project Files are located, then create a sales logo for the store. You can create your own or use the Text tool and the Rectangle tool to place the name of the store inside a rectangle.
- b. Save the image as **Sales Logo**, then close Paint.
- c. Start WordPad. In a blank document enter store information, including the name, address, city, state, zip, phone number, and store hours of the arts and craft store.
- d. Save the flier as **Stamp By Me** to the drive and folder where your Project Files are located.

- e. Enter store specials. They can include **Buy one, get one of equal or lesser value at 50% discount, 25% off**, or anything else.
- f. Create a list of important dates such as the following: **January 5, Introduction to Stamping, March 2, Introduction to Stamping**, and **March 19, Masking, Reverse Images, and Other Tricks**.
- g. Format the information in the document.
- h. Above the name of the arts and craft store, embed the Sales Logo image from the drive and folder where your Project Files are located.
- i. Embed a new bitmap image of your signature at the bottom of the document.
- j. Close Paint and return to WordPad.
- k. Proofread your flier and correct any errors, print the flier, then close WordPad.

► Independent Challenge 2

You are the owner of Hiezer Bakery. In an attempt to increase sales to businesses, you want to create a new catering menu with pastries and desserts. Using WordPad, enter and format text, then embed and edit a drawing to make the menu appealing.

- a. Start Paint, open the file WIN K-7 from the drive and folder where your Project Files are located, then create a menu sign for the bakery. Add appropriate text using the Text tool.
- b. Save the image as **Menu Sign**, then close Paint.
- c. Start WordPad, then create a menu with descriptions of at least five items.
- d. Save the document as **Hiezer Menu** to the drive and folder where your Project Files are located.
- e. Format the menu information to make it readable and attractive.
- f. At the top of your menu, embed the Menu Sign file from the drive and folder where your Project Files are located.
- g. Edit the embedded object from WordPad so that it contains the text **Now offering catering!** inside a circle.
- h. Proofread your document and correct any errors.
- i. Print the document, then close WordPad.
- j. Start Paint, open and print the Menu Sign file, then close Paint.

► Independent Challenge 3

You are the director of sales at Classified Collectibles, a large international distributor of stamps, pins, coins, and other rare items. You are seeking rights to distribute Olympic memorabilia to retail stores across the country. Write a letter to persuade the United States Olympic Committee to grant you the exclusive rights. Assume the following facts:

- The company currently distributes United States collectible stamps and coins.
- The company currently distributes 45,000 items through 50 distribution centers in the United States, Europe, Asia, and South America.
- There are four direct-sales centers with toll-free numbers.

- a. Start Paint, then open the file WIN K-8 from the drive and folder where your Project Files are located.
- b. Create a logo for Classified Collectibles using the Ellipse tool. (To make perfect circles, press [Shift] while you drag the Ellipse tool.) The logo can be similar to the Olympic rings logo, or you can use other tools to make it quite different.
- c. Save the image as **Classified Collectibles Logo**, then close Paint.
- d. Start WordPad, then write a letter to convince the Olympic Committee to award you the contract, and format the letter as needed.

- e. Save the WordPad file as **Olympic Letter** to the drive and folder where your Project Files are located.
- f. Link the Classified Collectibles Logo file on the drive and folder where your Project Files are located to your document.
- g. Start Paint and open the Classified Collectibles Logo file.
- h. Add the text **Classified Collectibles** to the logo, save the logo, then close Paint.
- i. Update the linked file in your WordPad document.
- j. Print the document.
- k. Save the file, then close WordPad.

► Independent Challenge 4

You are the president of Garfield Graffiti Removal, Inc., a company that specializes in the removal of graffiti. The company's patented RemoveX system removes paint from all types of surfaces. After removing the paint, GGRI restores surfaces with PreventX, a special clear coating that makes graffiti easier to clean up in the future. Write a letter to persuade the Los Angeles City Council to award GGRI the contract to remove graffiti from city property.

- a. Start Paint, then open the file WIN K-9 from the drive and folder where your Project Files are located.
- b. Create a logo for GGRI.
- c. Save the logo as **GGRI Logo** to the drive and folder where your Project Files are located, then close Paint.
- d. Start WordPad, then write a letter to convince the city council to award GGRI the contract, and format the letter as needed.
- e. Save the document as **LA Graffiti** to the drive and folder where your Project Files are located.
- f. In your letter, link the file GGRI Logo from the drive and folder where your Project Files are located.
- g. Start Paint and open the GGRI Logo.
- h. Add graffiti to the GGRI Logo using the Airbrush tool (the fifth tool in the left column), then close Paint.
- i. Update the linked file in your document.
- j. Print the document.
- k. Save the file, then close WordPad.

► Visual Workshop

Create a document that looks like the example in Figure K-23. Use WordPad as the destination program and Paint as the source program; use linking to save disk space. Save the document as Accident Report to the drive and folder where your Project Files are located. Print the document.

FIGURE K-23

